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ABSTRACT

The experience of challenge has been proposed as an important mechanism through which individuals learn new and more efficient strategies of operating on their environments. This study examined the relationship between challenging and supportive parental roles and the academic performance of 8th and 11th graders. The social roles of associates (same-gender parent and cross-gender parent) were explored as major moderators of the impact of challenge and support. Eighth and 11th grade students (N=74) described their relationships with each of their parents as being or not being characterized by six challenging attributes and four attributes of emotional support. Lorge-Thorndike Cognitive Aptitude Test Verbal, Quantitative, and Non-Verbal Reasoning nationally standardized subscores were used to assess academic achievement. The results revealed that adolescents who described their same-gender parents as challengers performed better on cognitive tests than did adolescents who did not. Those who described parents as supportive performed better on cognitive tests as well. Although the same-gender parents appeared to be potent challengers during early adolescence, their impact on cognitive functioning diminished over time. (Author/NB)

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The Influence of Parental Challenge and Support On Adolescents' Academic Achievement

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The Influence of Parental Challenge and Support On Adolescent Academic Achievement

Abstract:

The present research addresses the question of whether adolescents who are exposed to challenging and supportive parents show superior cognitive performance. The social roles of associates -- same-gender parent and cross-gender parent -- are explored as major moderators of the impact of challenge and support. Seventy-four eighth grade and eleventh grade students described their relationships with significant others using self-report questionnaires, and this information was used to predict standardized test performance. Adolescents who describe their same-gender parents as challengers perform better on cognitive tests than adolescents who do not. Those who describe parents as supportive perform better on cognitive tests as well. Although same-gender parents appear to be potent challengers during early adolescence, their impact on cognitive functioning diminishes over time.

**Influence of Parental Challenge and Support
On Adolescents' Academic Achievement**

The experience of challenge -- being pushed beyond that which is already known, having one's ideas examined and questioned, being introduced to ideas and experiences that are new -- has been proposed by both Vygotsky (1978) and Piaget (1983) as an important mechanism through which individuals learn new and more efficient strategies of operating on their environments. If this is true, children whose parents consistently provide challenging experiences would be expected to show superior performance on measures of academic achievement. It might also be expected that high-achieving students are more likely to evoke challenging behavior from their parents and others around them. Yet challenge alone, without accompanying emotional support, may inhibit the learning of skills through anxiety and fear of failure.

This study examines the relationship between challenging and supportive parental roles and the academic performance of eighth and eleventh graders. Given the prevailing patterns in our culture, where children tend to become more involved with their same-gender parent, we expect that any trends found would be more pronounced for that parent. The relative predictive power of parental challenge and support will also be examined.

Procedure and Measures: 45 female and 26 male volunteers from a rural Middle and High School completed a series of questionnaires in which they

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described their relationship with each of their parents as being or not being characterized by six challenging attributes (This person introduced me to new interests, ideas, and experiences; This person pushed me to do things on my own, etc.). Students also stated whether their relationships with their parents were characterized by four attributes of emotional support (This person gave me advice about my personal life; This person gave me emotional support, security, and encouragement, etc). Parents were classified as challengers and supporters if their child described their relationship with them using the majority of each set of attributes.

Lorge-Thorndike Cognitive Aptitude Test Verbal, Quantitative, and Non-Verbal Reasoning nationally standardized subscores were used to assess academic achievement. These test scores have a mean of 100 and a standard deviation of 10. A 2 X 2 X 2 X 2 X 2 X 2 (Same-Gender Parent Challenge X Same-Gender Parent Support X Cross-Gender Parent Challenge X Cross-Gender Parent Support X Subject Gender X Grade) analysis of variance was performed on cognitive test scores. Because of small cell sizes, only the statistical significance of first-order interactions were tested. Higher order interactions have been included in the error term. In addition, because the large number of interaction terms proved highly unstable, all interactions terms except for those involving grade were included in the error term. The results of this analysis are reported in Table 1.

Results: Our results were generally in accord with stated hypotheses. Students who describe their same-gender parent as a supporter perform better on all cognitive ability tests than those who do not. Students who describe their same-gender parent as a challenger perform better on verbal and quantitative ability tests. The impact of same-gender parental challengers on verbal and

quantitative performance varies significantly depending upon the grade level of the adolescent, and shows a similar trend in non-verbal reasoning. As illustrated in Figure 1, eighth grade students who describe their same-gender parent as challenging perform better on verbal and quantitative tests than those who do not ($p < .01$, Bonferroni correction for two tests), while no such relationship is seen among eleventh graders. Interestingly, when the effect of same-gender parental challenge and support are controlled, there is no significant relationship between the functional roles of cross-gender parents and test scores.

The impact of the functional roles of both challenger and supporter differ depending upon the relationship of adolescent to parent gender, with the functional roles of same-gender parents being particularly important. In addition, the adolescent's grade level moderates the impact of same-gender parental challenge on both verbal and quantitative test scores, with the positive relationship between challenge and cognitive performance seen only among eighth graders. There is no evidence that the supportive role of the parent moderates the impact of challenge on adolescents' cognitive performance.

Conclusions: As predicted, adolescents who have challenging parents perform better on cognitive tests than adolescents who do not. The impact of this functional role varies depending upon who the associate filling it is -- same-gender parent or cross-gender parent -- the grade level of the adolescent themselves, and the particular cognitive task. Same-gender parents appear to be potent challengers during early adolescence, but their impact on cognitive functioning diminishes over time.

Students who describe parents as supporters perform better on cognitive tests as well. Same-gender parental support seems especially important for

adolescent cognitive development, particularly in the development of non-verbal reasoning. There is no evidence that the support of associates moderates the impact of challenge on adolescent cognitive performance. In addition, it appears that the functional role played by one associate does not alter the influence of the functional role played by another.

These findings are consistent with, but go beyond, previous research in the field. Most apparent is the correspondence between these results and those of Baumrind and her colleagues' (1967, 1968) description of the authoritative parenting style and the competent child. Although the concept of authoritative parenting incorporates elements of both support and challenge, it does not differentiate between the two. The present research introduces two additional distinctions of both theoretical and practical significance. First, it demonstrates that it is the challenging and supportive roles of the same-gender parent which are critical. Second, it shows that the impact of parental functional roles on adolescents' academic performance varies with the age of the student.

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Table 1

Effects of Parental Functional Roles on Adolescent Cognitive Performance

	Test		
	Verbal	Quantitative	Reasoning
	M Difference	M Difference	M Difference
Same-Gender Challenger	7.55*	7.37**	3.23
Same-Gender Supporter	8.67**	5.55*	11.25***
Cross-Gender Challenger	1.97	-2.75	.38
Cross-Gender Supporter	.18	3.29	.07
Subject Gender[a]	-2.16	.76	-5.79
Grade Level[b]	4.47	2.93	.54
Grade X Same-Gender Challenge[c]	-15.59**	-19.22***	-11.15
Grade X Same-Gender Support	2.22	.04	-5.42
Grade X Cross-Gender Challenge	12.26	4.31	4.28
Grade X Cross-Gender Support	-4.84	3.38	-.11

Note. n = 70.

[a] Positive mean differences indicate girls received higher scores than boys. [b] Positive mean differences indicate 11th graders performed better than 8th graders. [c] Positive interaction terms indicate that the impact of functional roles on 11th graders is stronger than on 8th graders.

* $p < .10$ ** $p < .05$ *** $p < .01$